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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,048	08/15/2001	Masaru Ishiwa	0941.65751	1182
7590	01/05/2004			
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606				EXAMINER RAO, SHRINIVAS H
				ART UNIT 2814 PAPER NUMBER
DATE MAILED: 01/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/930,048	ISHIWA ET AL.
	Examiner	Art Unit
	Steven H. Rao	2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 27 October 2003.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 135 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 135 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) Notice of Informal Patent Application (PTO-152)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.      6) Other: \_\_\_\_\_

***Response to Amendment***

Applicants' amendment filed on October 14, 2003 has been entered on October 27, 2003.

Therefore claim 1 as amended by the amendment and claims 3-5 as originally filed are currently pending in the Application.

Claims 2 and nonelected claims 6-10 have been cancelled by the amendment.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U. S. Patent No. 5,838,412, herein after Ueda) as applied to claim1 above and further in view of Casson et al. (U.S. Patent No. 5,502,889 herein after Casson)..

With respect to claim 1 Ueda describes a liquid-crystal display unit comprising: a first board having a signal line, a scanning line and a pixel electrode ( Ueda col. 1 lines 15-40); a second board having a common electrode, the second board opposing said first board; ( Ueda col. 14 lines 21-24)

a liquid-crystal layer provided between said first board and said second board; ( Ueda Figure 1) and a third board having at least one of a signal-line driver driving said signal line and a scanning-line driver driving said scanning line, the third board being

separate from said first board and said second board. ( Ueda figure 22, col. 19 lines 20-26)

Ueda describes two boards without specifically stating, " that the third board is formed of the same material in the same process as said first board and is divided from said first board.

However, Casson in col. 5 lines 20-30 describes a multi layer electronic circuit of at least three circuit boards all made of the same material and and also coated with same materials like metal dust and epoxy layers thereon to form multi layers with similar coatings so as to reduce the internal mechanical stress and forming more fail proof connections and form circuits that with stand thermal cycling better.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Casson's boards of same material in Ueda's boards to form multi layers with similar coatings so as to reduce the internal mechanical stress and forming more fail proof connections and form circuits that with stand thermal cycling better. ( Casson col. 8 lines 32- 40).

With respect to claim 3 Ueda describes the liquid-crystal display unit as claimed in claim 1, wherein said third board is connected to said first board by a flexible cable. ( Ueda figure 16 B, col. 13 lines 1-14).

With respect to claim 4 Ueda describes the liquid-crystal display unit as claimed in claim 1, wherein said third board is connected to said first board by a wire bonding. ( Ueda col. 14 lines 1-17).

With respect to claim 5 Ueda describes the liquid-crystal display unit as claimed in claim 1, wherein said third board is connected to said first board by a flip-chip bonding. ( Ueda col.1 lines 60-61).

***Response to Arguments***

Applicant's arguments filed October 27, 2003 have been fully considered but they are not persuasive because Applicants; first contention that Ueda fails to teach, " said third board is formed of the same material in the same process as said first board, and is divided from said first board" is not persuasive because Ueda in col. 1lines 31to 424, 55 to 62 nd col.2 lines 1-14 describes several boards which are formed of the same material .

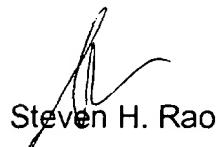
Casson teaches divided boards in atleast figure 1c and ( Ueda figure 22, col. 19 lines 20-26) therefore of Ueda and Casson teach a third board divided from first board.

The objectives of Ueda reference as a limitation that distinguishes the claimed invention from Ueda need not be given patentable weight as the alleged different objective has not be excluded from the presently recited claims.

Dependent claims 3-5 were alleged to be allowable as they allegedly dependent upon allowable claim 1 , however as seen above claim 1 is not allowable, therefore claims 3-5 are also not allowable.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (703) 306-5945. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 5:30 p.m.

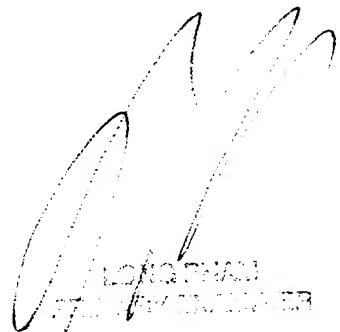
Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.



Steven H. Rao

Patent Examiner

Dec. 26, 2003.



Steven H. Rao  
Patent Examiner